Freshwater Biology

Edited by P.S.Maitland and D.W.Sutcliffe

Volume 5, 1975

Blackwell Scientific Publications
Oxford, London, Edinburgh and Melbourne

Published by
Blackwell Scientific Publications
Osney Mead, Oxford

Printed and bound in Great Britain by
Adlard & Son Ltd, Bartholomew Press, Dorking

CONTENTS

309

VOL. 5, NO. 1, FEBRUARY 1975

1 *E.L.Dickson:* A silica budget for Lough Neagh 1970–1972

13 *G.G.Ganf and A.J.Horne:* Diurnal stratification, photosynthesis and nitrogen-fixation in a shallow, equatorial Lake (Lake George, Uganda)

41 *John F.Wright:* Observations on some predators of stream-dwelling triclads

51 *J.M.Elliott:* Weight of food and time required to satiate brown trout, *Salmo trutta* L.

65 *Peter Zwick:* Critical notes on a proposed method to estimate production Schlitzer produktionsbiologische Studien (9)

71 *J.D.Hynes:* Annual cycles of macro-invertebrates of a river in Southern Ghana

85 *Y.C.Tai* and *I.J.Hodgkiss:* Studies on Plover Cove Reservoir, Hong Kong. II. Seasonal changes in naturally occurring periphytic communities

VOL. 5, NO. 2, APRIL 1975

105 *T.K.Crosby:* Food of the New Zealand trichopterans *Hydrobiosis parumbripennis* McFarlane and *Hydropsyche colonica* McLachlan

115 *Marie-France Baudouin and Pietro Scoppa:* The determination of nucleic acids in freshwater plankton and its ecological implications

121 *H.J.Bromley and F.D.Por:* The metazoan fauna of a sewage-carrying wadi, Nahal Soreq (Judean Hills, Israel)

135 *B.C.Chessman and W.D.Williams:* Salinity tolerance and osmoregulatory ability of *Galaxias maculatus* (Jenyns) (Pisces, Salmoniformes, Galaxiidae)

141 *Virginia E.Dodson:* The distribution and habitat separation of three corixids (Hemiptera: Heteroptera) in western Colorado

151 *L.W.G.Higler:* Reactions of some caddis larvae (Trichoptera) to different types of substrate in an experimental stream

159 *J.R.Moed and H.L.Hoogveld:* Dominant diatoms in Tjeukemeer: The appearance of *Diatoma elongatum* (Lyngb.) Agardh

167 *Edward Fahy:* Quantitative aspects of the distribution of invertebrates in the benthos of a small stream system in western Ireland

183 *J.F.Craig:* Seasonal variation in the catching power of traps used for perch *Perca fluviatilis* L.

189 *Cary D.Kerst and N.H.Anderson:* The Plecoptera community of a small stream in Oregon, U.S.A.

205 *T.D.Murray and W.N.Charles:* A pneumatic grab for obtaining large, undisturbed mud samples: its consrruction and some applications for measuring the growth of larvae and emergence of adult Chironomidae

VOL. 5, NO. 3, JUNE 1975

211 *Maurice A.Lock:* An experimental study of the role of gradient and substratum in the distribution of two stream-dwelling triclads, *Crenobia alpina* (Dana) and *Polycelis felina* (Dalyell) in North Wales

227 *W.Charles Kerfoot:* Seasonal changes of *Bosmina* (Crustacea, Cladocera) in Frains Lake, Michigan: laboratory observations of phenotypic changes induced by inorganic factors

245 *N.Murugan:* Egg production, development and growth in *Moina micrura* Kurz (1874) (Cladocera: Moinidae)

251 *W.J.P.Smyly and Vera G.Collins:* The influence of microbial food sources and aeration on the growth of *Ceriodaphnia quadrangula* (O.F.Müller) (Crustacea: Cladocera) under experimental conditions

257 *C.F.Mason and R.J.Bryant:* Changes in the ecology of the Norfolk Broads

271 *C.F.Mason and R.J.Bryant:* Periphyton production and grazing by chironomids in Alderfen Broad, Norfolk

279 *C.E.Gibson:* Cyclomorphosis in natural populations of *Oscillatoria redekei* Van Goor

278 *J.M.Elliott:* Number of meals in a day, maximum weight of food consumed in a day and maximum rate of feeding for brown trout, *Salmo trutta* L.

VOL. 5, NO. 4, AUGUST 1975

305 *T.B.Reynoldson and Patricia Bellamy:* Triclads (Turbellaria : Tricladida) as predators of lake-dwelling stonefly and mayfly nymphs

313 *R.Goulder:* The effects of photosynthetically raised pH and light on some ciliated Protozoa in a eutrophic pond

323 *C.S.Reynolds:* Interrelations of photosynthetic behaviour and buoyancy regulation in a natural population of a blue-green alga

339 *C.S.Reynolds:* Temperature and nutrient concentration in the characterization of the water supply to a small kataglacial lake basin

357 *R.S.Wilson, M.A.Sleigh, T.R.A.Maxwell, G.Mance and R.A.Milne:* Physical and chemical aspects of Chew Valley and Blagdon Lakes, two eutrophic reservoirs in North Somerset, England

379 *R.S.Wilson, T.R.A.Maxwell, G.Hance, M.Sleigh and R.A.Milne:* Biological aspects of Chew Valley and Blagdon Lakes, England

395 Book Reviews

VOL. 5, NO. 5, OCTOBER 1975

397 *J.W.Elwood and R.A.Goldstein:* Effects of temperature on food ingestion rate and absorption, retention, and equilibrium burden of phosphorus in an aquatic snail, *Goniobasis clavaeformis* Lea

407 *Raymond A.Soltera and John C.Wright:* Primary production studies on a new reservoir; Bighorn Lake—Yellowtail Dam, Montana, U.S.A.

423 *W.B.Kirchner:* The effect of oxidized material on the vertical distribution of freshwater benthic fauna

431 *R.O.McLean and A.K.Jones:* Studies of tolerance to heavy metals in the flora of the rivers Ystwyth and Clarach, Wales

445 *C.Howard-Williams and G.M.Lenton:* The role of the littoral zone in the functioning of a shallow tropical lake ecosystem

461 *Alexander J.Horne and Coen J.W.Carmiggelt:* Algal nitrogen fixation in Californian streams: seasonal cycles

471 *Alexander J.Horne:* Algal nitrogen fixation in Californian streams: diel cycles and nocturnal fixation

479 *P.D.Armitage, Angela M.MacHale and Diane C.Crisp:* A survey of the invertebrates of four streams in the Moor House National Nature Reserve in Northern England

497 Book Reviews

VOL. 5, NO. 6, DECEMBER 1975

507 *H.Casey:* Variation in chemical composition of the River Frome, England from 1965 to 1972

515 *J.D.Hynes:* Downstream drift of invertebrates in a river in Southern Ghana

533 *Ron R.Wallace, H.B.N.Hynes and N.K.Kaushik:* Laboratory experiments on factors affecting activity of *Gammarus pseudolimnaeus* Bousfield

547 *S.F.Mitchell:* Some effects of agricultural development and fluctuations in water level on the phytoplankton productivity and zooplankton of a New Zealand reservoir

568 *J.W.Hargreaves, E.J.H.Lloyd and B.A.Whitton:* Chemistry and vegetation of highly acidic streams

577 *M.J.Daft, Susan B.McCord and W.D.P.Stewart:* Ecological studies on algal-lysing bacteria in fresh waters

597 Author index to volume 5